COCONINO COUNTY
HEALTH DEPARTMENT
Making A Difference Every Day
Barbara Worgess
Director

COCONINO COUNTY
HEALTH DEPARTMENT

ENVIRONMENTAL QUALITY

PROCEDURES FOR CONVENTIONAL COMMERCIAL WASTEWATER TREATMENT FACILTY (OWTF) PROVISIONAL VERIFICATION

Sumbit the following items below in order to obtain Provisional Verification (PV) to construct and discharge from a conventional OWTF [Arizona Administrative Code (AAC) R18-9-E302].

COMPLETENESS REVIEW:

1) Completed Notice of Intent to Discharge (application, pages 2-3).
2) Appropriate fee (see page 2 to determine your fee).
3) Three detailed plot plans of the property. Minimum paper size 8½" x 11" (see plot plan checklist for requirements on page 4).
4) One floor plan drawn to scale with all plumbing fixture units (sinks, toilets, floor drain, etc.).
5) System design flow calculations (page 6, 7). Plumbing fixture units and/or building square footage may be used to determine floor rates. Contact the Environmental Services Office for a determination.
6) Design calculation form for shallow & deep trench systems **OR** for chamber technology systems (page 8,9).

IF ANY OF THESE ITEMS ARE NOT COMPLETE OR ARE MISSING, THE APPLICATION AND ALL PAPERWORK WILL BE SENT BACK TO THE APPLICANT FOR COMPLETION.

PLAN REVIEW:

1) When the submittal is complete, we have 10 working days to complete the review.
2) If your submittal does not comply with the requirements of the general permit or other applicable requirements of Article 3 (Aquifer Protection Permits), you will receive a written request for additional information.
3) When your submittal is approved, you will receive a copy of your PV, along with a copy of your stamped approved plot plan. A copy of your PV will be forwarded to Community Development. You will have 2 years to complete construction of your OWTF from the time the PV was issued. Once the construction is complete, please contact your district inspector to schedule a final inspection. Please allow 5 working days for final inspection (weather permitting).
4) If your submittal is denied, you will receive a Notice of Denial with a list of deficiencies to be corrected. After corrections have been made, re-apply and pay the required fee.

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NOTICE OF INTENT TO DISCHARGE

FEES		
☐	**Commercial Conventional NOID**	**$455.00**

PAYMENT INFORMATION

FEE PAID: _____ **DATE:** _____

RECEIPT # _____

SUBMITTED TO: _____

SITE INFORMATION

SUBDIVISION: _____ **UNIT #** _____ **LOT #** _____

ASSESSOR'S PARCEL # _____ **SIZE IN ACRES:** _____

PROPERTY ADDRESS: _____

TOWNSHIP: _____ **RANGE:** _____ **SECTION:** _____ , _____ ¼ _____ ¼ _____ ¼

LATITUDE: _____ ° _____ ' _____ " N **LONGITUDE:** _____ ° _____ ' _____ " W

HOME OWNER/AUTHORIZED AGENT (person with overall permit responsibility)

NAME OF BUSINESS: _____

NAME: _____ **TELEPHONE/FAX #** _____

ADDRESS: _____ **CITY/STATE/ZIP:** _____

CONTACT PERSON (if different than home owner)

NAME: _____ **TELEPHONE/FAX #** _____

ADDRESS: _____ **CITY/STATE/ZIP:** _____

CONTRACTOR INFORMATION

NAME: _____ **TELEPHONE/FAX #** _____

ADDRESS: _____ **CITY/STATE/ZIP:** _____

LICENSE # _____ **LICENSE CLASSIFICATION:** _____

DISPOSAL SYSTEM INTENDED TO SERVE (check category & give requested figures)

☐	**OFFICE – # OF SQUARE FEET?** _____	☐	**RESTAURANT - # OF MEALS SERVED?** _____
☐	WAREHOUSE - # OF SQUARE FEET? _____	☐	MOTEL - # OF SQUARE FEET? _____
☐	CAMPGROUND - # OF CAMPSITES? _____	☐	TRAILER/MOBILE HOME PARK - # OF SPACES? _____
	# OF CENTRAL BATHHOUSES? _____	☐	RETAIL SPACE - # OF SQUARE FEET? _____

☐ OTHER – (SPECIFY & GIVE DETAILS) :

NARRATIVE DESCRIPTION OF PROJECT

☐ **CONVENTIONAL SEPTIC TANK SYSTEM (GENERAL PERMIT 4.02) SERVING A COMMERCIAL DEVELOPMENT.**

This onsite wastewater treatment facility consists solely of a conventional septic tank system and disposal field sized for a design flow of _____ Gallons per day. The septic tank conveys wastewater to a disposal field consisting of (*check one)*:

☐ **SHALLOW TRENCH** ☐ **DEEP TRENCH** ☐ **BED** ☐ **CHAMBER TECHNOLOGY**

The expected date of the first operation of this system is _____ . The sewage to the septic tank has the characteristics of: ☐ **TYPICAL HOUSEHOLD SEWAGE; OR** ☐ **TYPICAL HOUSEHOLD SEWAGE and (*list other sources and characteristics of the wastewater)*** _____

CERTIFICATION OF COMPLIANCE: To be completed by the homeowner or authorized agent.

I, _____ , on this date of, _____ certify that this Notice of Intent To Discharge and attachments were prepared under my direction or authorization and all information is, to the best of my knowledge, true, accurate, and complete. I also certify that the septic tank and disposal field system described in this form is or will be designed, constructed, and operated in accordance with the terms and conditions of General Aquifer Protection Permit 4.02 (AAC R18-9-E302) and applicable requirements of Arizona Revised Statutes Title 45, Chapter 2, and Arizona Administrative Code Title 18, Chapter 9 regarding aquifer protection permits. I am aware that there are significant penalties for submitting false information including permit revocation as well the possibility of fine and imprisonment for knowing violations.

_____

SIGNATURE

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PLOT PLAN CHECKLIST FOR COMMERCIAL SYSTEM

NAME: _____ **PHONE #** _____

_____ _____

SUBDIVISION/PARCEL# _____

DIRECTIONS: The following checklist includes all the items necessary for properly completing the plot plan. Please add all of the items to your plot plan that apply. If your plot plan submittal does not comply with the requirements of the general permit or other applicable requirements of Article 3 (Aquifer Protection Permits), you will receive a written request for

#	Yes	No	GENERAL INFORMATION
1.	☐	☐	All property dimensions, names of streets, roadways and easements.
2.	☐	☐	Scale needs to be either 1" = 20' for 1 acre or less. 1" = 40' for more than 1 acre.
3.	☐	☐	Direction of North.
4.	☐	☐	Owners name, designer's name, assessor's parcel #, subdivision, and lot #.
5.	☐	☐	Property size in acres.
6.	☐	☐	Location & dimensions of all proposed & existing structures (including decks, patios, & driveways).
7.	☐	☐	Location of wells, water lines, & bodies of water (include wells within 100' of neighboring properties).
8.	☐	☐	Distance to cuts, slopes, dry washes & drainage easements greater than 25' from system or reserve area.
9.	☐	☐	Topography, showing appropriate contour intervals, with original and post installation grades.
10.	☐	☐	Lot features such as hills, valleys, and gullies.
11.	☐	☐	Location of all test holes.
12.	☐	☐	Location of all percolation test(s).

#	Yes	No	SYSTEM DIMENSIONS:
13.	☐	☐	Building sewer line length & slope (min. length is 10' & max. length is 100', w/ ¼" per ft. fall).
14.	☐	☐	Two-way clean-out(s) location in the building sewer line. (1 @ dwelling, 1 every 50', 1 @ any bend greater than 45 degrees).
15.	☐	☐	Septic tank size, material, and tank manufacturer (must be ADEQ approved).
16.	☐	☐	Septic tank effluent filter (assure that it prevents passage of solids > 1/8", corrosion & erosion resistant)
17.	☐	☐	Septic tank risers over inlet & outlet (and over center when applicable).
18.	☐	☐	Outlet line length, type, & slope, (min. length is 6' & min. slope is 4").
19.	☐	☐	Distribution method: a) Distribution Box (D-box), required for 3 lines or more. D-box must be leveled w/ water (have water available for final inspection), must be set on a concrete pad & stabilized with a concrete collar. b) Level Manifold Line, two lines required. Indicate stabilization method.
20.	☐	☐	Leach line lengths and total number. All lines must be the same length to provide equal distribution. (Lines cannot exceed 100', must be level & capped at each end).
21.	☐	☐	Distance between distribution pipe. (2x the effective depth, or 5 feet, whichever is greater).
22.	☐	☐	Location of reserve area. Reserve area must be equal in size to the disposal field.
23.	☐	☐	Provide a cross-section of your proposed leach trench, chamber, or bed showing the inspection pipe, effective area, trench width, and total-trench depth etc. (use pages 7 & 8 for completion).
24.	☐	☐	Must meet all minimum setback requirements (page 5).

FOR DEPARTMENT USE ONLY

☐ **APPROVED** ☐ **NOT APPROVED** **DATE:** **ENV. SPECIALIST:**

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SETBACK REQUIREMENTS R18-9-A312(C)

COMMENTS: _____

FEATURE OF POTENTIAL IMPACT	SETBACK DISTANCE (FEET)	
	SEPTIC TANK	DISPOSAL TRENCH, BED, OR SEEPAGE PIT
Building (1)	10	10
Property line shared with adjoining land **not served** by a common drinking water system or an existing well (2)	50	50
All other property lines	5	5
Water supply well (public or private)	100	100
Perennial or intermittent stream (3)	100	100
Lake or reservoir (4)	100	100
Drinking water intake from a surface water source (includes an open water body, downgrade spring or a well tapping streamside saturated alluvium)	200	200
Drainage easement or wash with drainage area more than five acres (5)	50	50
Water main or branch water line well tapping streamside saturated alluvium)	10	10
Domestic service water line (6)	5	5
Downslope cut banks and culvert or roadway ditches (7)	15	15
Driveway (8)	5	5
Swimming pool (9)	5	5
Easement (except drainage easement)	5	5

Notes:

(1) Includes porches, decks, and steps (covered or uncovered), breezeways, roofed patios, carports, covered walks and driveways, and similar structures and appurtenances.

(2) A common drinking water system is a system that currently serves or is under legal obligation to serve the property and may include a drinking water utility, a well sharing agreement, or other viable water supply agreement. A setback may be reduced to a minimum of five feet from the property line if:
   a. The owners of any affected undeveloped adjacent properties agree by an appropriate written document to limit the location of any new well on their property to at least 100 feet from the proposed septic tank and primary and reserve disposal field areas; and
   b. The arrangements and documentation are approved by the Department.

(3) Measured from the limit of peak stream flow from a 10-year, 24-hour rainfall event.

(4) Measured from the high water line from a 10-year, 24-hour rainfall event at the lake or reservoir.

(5) Measured from the nearest edge of the defined natural channel bank or drainage easement whichever is less. A setback may be reduced to 25 feet if natural or constructed erosion protection is approved by the appropriate flood plain administrator.

(6) The water line separation from sewer lines shall be as follows:
   a. A water line crossing a sewer line at an angle of 45 to 90 degrees shall be one foot above the sewer line.
   b. A water line crossing a sewer line at an angle of less than 45 degrees is not allowed.
   c. A water line that is one to three feet from a sewer line but does not cross the sewer line shall be one foot above the sewer line and may be on a bench in the same trench or in a separate trench.
   d. A water line that is less than one foot from a sewer line but does not cross the sewer line is not allowed.

(7) Measured to the top of the cut bank or ditch or to the nearest sidewall of the culvert. The setback to a disposal trench, bed, or seepage pit is 15 feet or four times the elevation difference between the finished grade of the disposal trench, bed, or seepage pit and the elevation at the cut bank bottom, ditch bottom, or culvert invert, whichever is greater, up to 50 feet.

(8) Measured to the nearest edge of septic tank excavation. A properly reinforced septic tank and cover may be placed at any location relative to a driveway if access openings, risers, and covers carry the design load and are protected from inflow.

(9) A setback may be increased due to soil loading and stability concerns.

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DESIGN CALCULATIONS FOR SHALLOW & DEEP TRENCH SYSTEMS

Check the box for what type of system you are proposing, complete the calculations and submit this with your application.

☐ SHALLOW TRENCH ☐ **DEEP TRENCH**

DESIGN CALCULATIONS

See page 6 to determine your system design flow. System design flow = _____ gallons per day (B) flow.

Percolation rate = _____ (mpi) *For your SAR value see R18-9-A312D of the Aquifer Protection Permits.*

SAR value = _____ gallons per day / ft² (C) (B ÷ C) _____ total square feet.

Choose a sidewall depth & trench width between 1 & 3 feet.

Sidewall depth (1'-3') = _____ feet x 2 = _____ feet (D) Trench width (1'-3') = _____ trench ft² (E)

D + E = _____ feet (F) *(Maximum trench credit = 9', or up to 11' with Alternate features R18-9-A312G)*

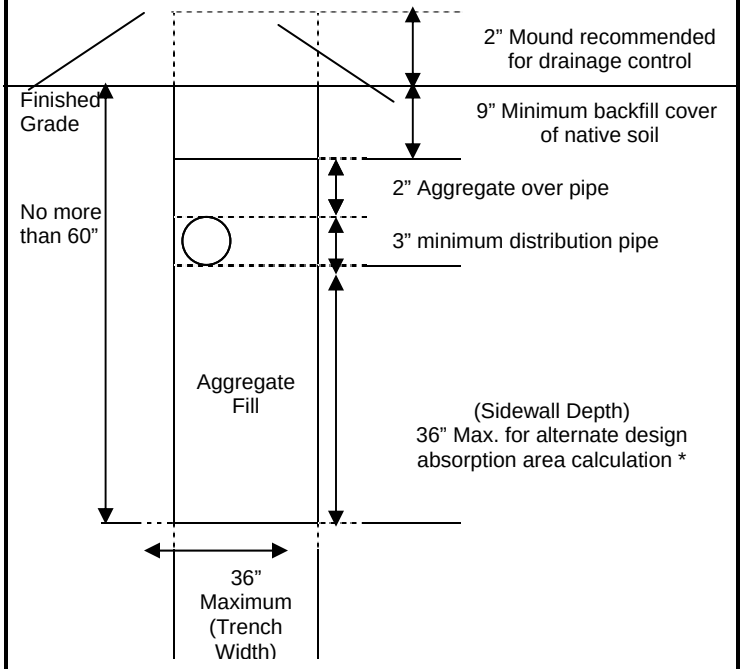
Constructed trench length = $\frac{(B)}{(C)} \times \frac{}{(F)} = \frac{\quad}{\quad} \times \frac{\quad}{\quad} = \frac{\quad}{\quad} = \frac{\quad}{\quad}$ linear feet.*

** Linear feet equals amount of distribution pipe that your system will require. Divide linear feet into the number of distribution lines you plan to construct.*

DRAWINGS NOT TO SCALE

SHALLOW TRENCH DESIGN

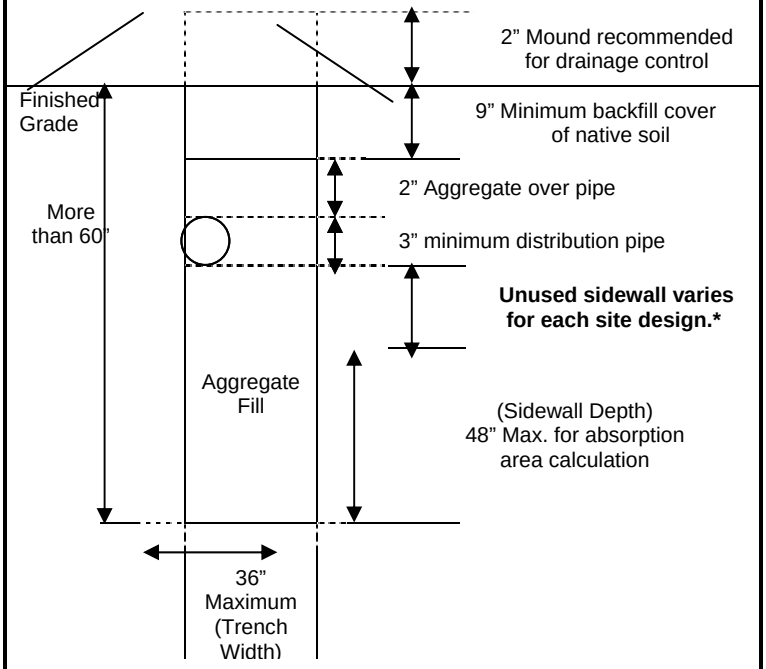
Please note that on a level lot the depth to grade will exceed the 9" minimum backfill.



* NOTE: An applicant may apply for up to 4 ft² of sidewall by completing the 312G form in areas where there is no seasonal saturation of surface soils. (ADEQ Rule Clarification #9)

DEEP TRENCH DESIGN

Deep trenches are used when the fall from the house is too great, and where there are limiting soils in the upper horizon.



* NOTE: Actual sidewall dimension for absorption area calculation depends on trench depth and position of distribution pipe.

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DESIGN CALCULATIONS FOR CHAMBER TECHNOLOGY

CHAMBER TECHNOLOGY

Chamber _____ Chamber _____

Width of the open bottom absorption surface of the _____ feet (B)

Vertical height (louver height) of the chamber _____ feet (V)

Length of the _____ feet (L)

A = (1.43 x B x L) + (2 x V Absorption area of each chamber =

(1.43 _____ x _____) + (2 _____ x _____) =

(_____) + (_____) = _____ feet

Note: See page 6 to determine system design flow.

System design _____ gallons per day (F)

Percolation _____ SAR value _____ gallons per day / ft (G)

(F / G) _____ / _____ = _____ square feet of leaching area required (S)

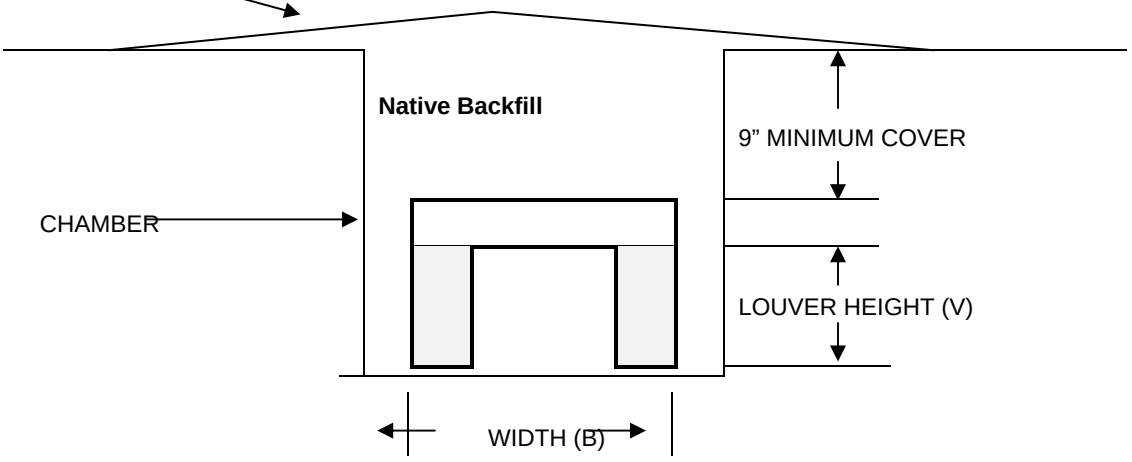
(S / A) _____ / _____ = _____ total #chambers. (N) (max 16 chambers per

(L x N) _____ x _____ = _____ linear ft.

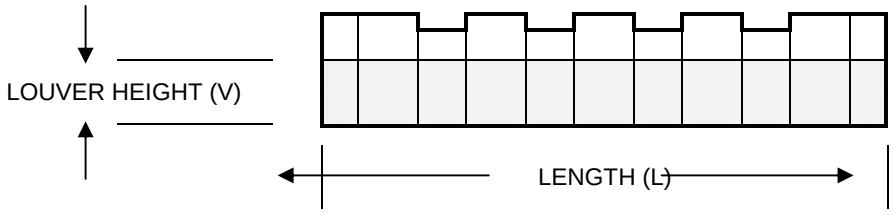
MOUND FOR DRAINAGE CONTROL

CHAMBER TRENCH DETAIL

NOT TO SCALE



CHAMBER SIDE VIEW



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